

Appl. No. : 09/731,474
Filed : December 6, 2000

AMENDMENTS TO THE CLAIMS

1. (Cancelled).
2. (Cancelled).
3. (Cancelled).
4. (Cancelled).
5. (Previously Presented) A decoder apparatus for a video compression and decompression system, comprising:
 - an input to receive an encoded video sequence;
 - an output operative to transmit a decoded video sequence;
 - a video decoder coupled with the input and configured to decode the received encoded video sequence into a decoded video sequence that contains compression artifacts; and
 - a filter module coupled with the video decoder and the output, said filter module configured to filter the compression artifacts in the decoded video sequence, the filter module that is configured to filter the compression artifacts having a variable filter strength that is a function of the motion activity within the video sequence, wherein the filter module includes an activity counter configured to categorize each frame of the decoded video sequence as a first activity frame or as a second activity frame.
6. (Original) The decoder apparatus of Claim 5, wherein the activity counter increases a first counter value for each high activity frame and decreases the first counter value for each low activity frame.
7. (Original) The decoder apparatus of Claim 6, wherein the activity counter decreases a second counter value for each high activity frame and increases the second counter value for each low activity frame.
8. (Original) The decoder apparatus of Claim 7, wherein the activity counter determines a difference between the first counter value and the second counter value.
9. (Original) The decoder apparatus of Claim 8, wherein the filter module includes a threshold detector configured to compare the difference with at least one predetermined threshold value and configured to generate a control signal to adjust the filter strength.
10. (Original) The decoder apparatus of Claim 9, wherein the control signal adjusts the filter strength to one of a high level, a medium level and a weak level.

Appl. No. : 09/731,474
Filed : December 6, 2000

11. (Original) The decoder apparatus of Claim 10, wherein the medium level is a default level.

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Previously presented) A method of filtering a decoded video sequence in a video compression and decompression system, comprising:

receiving a decoded video sequence containing compression artifacts;

determining a motion activity of each frame of the decoded video sequence;

categorizing each frame as a frame of high activity or as a frame of low activity based on the determined motion activity;

adjusting a filter strength of a filter to remove compression artifacts within the decoded video sequence as a function of the determined motion activity;

increasing a first counter value for each high activity frame and decreasing the first counter value for each low activity frame;

decreasing a second counter value for each high activity frame and increasing the second counter value for each low activity frame; and

determining a difference between the first counter value and the second counter value.

16. (Original) The method of Claim 15, further comprising:

comparing the difference with at least one predetermined threshold value; and

generating a control signal to adjust the filter strength.

17. (Original) The method of Claim 16, wherein adjusting the filter strength includes selectively adjusting the filter strength to one of a number of predetermined levels.

18. (Original) The method of Claim 16, wherein adjusting the filter strength includes selectively adjusting the filter strength to one of a high level, a medium level and a weak level.

19. (Original) The method of Claim 18, wherein adjusting the filter strength includes adjusting the filter strength to the medium level is a default level.

20. (Original) The method of Claim 19, further comprising adjusting the filter strength to the strong level if the difference is positive and if the difference is greater than a first threshold value.

Appl. No. : 09/731,474
Filed : December 6, 2000

21. (Original) The method of Claim 20, further comprising resetting the filter strength to the medium level if the difference is negative and if an absolute value of the difference is greater than a second threshold value.

22. (Original) The method of Claim 22, further comprising adjusting the filter strength to the weak level if the difference is negative and if an absolute value of the difference is greater than a third threshold value.

23. (Original) The method of Claim 22, further comprising resetting the filter strength to the medium level if the difference is positive and if the difference is greater than a fourth threshold value.

24-48. Cancelled.

49. (Currently amended) A method comprising:

receiving an encoded video sequence;

decoding the received encoded video sequence into a decoded video sequence that contains compression artifacts;

categorizing each frame of the decoded video sequence as a first activity frame or as a second activity frame; and

removing with a filter module [filtering] the compression artifacts in the decoded video sequence[, the filtering removing compression artifacts], [the strength of] the [filtering] filter module having a variable filter strength being a function of the motion activity within the decoded video sequence.

50. (Previously presented) The method of Claim 49, wherein the category of the first activity frame is a high activity frame and the category of the second activity frame is a low activity frame.

51. (New) The method as recited in Claim 49 wherein each frame is categorized with the filter module.